



Complete Summary

GUIDELINE TITLE

Management of persistent asthma.

BIBLIOGRAPHIC SOURCE(S)

Michigan Quality Improvement Consortium. Management of persistent asthma. Southfield (MI): Michigan Quality Improvement Consortium; 2004 Aug. 1 p.

GUIDELINE STATUS

Note: This guideline has been updated. The National Guideline Clearinghouse (NGC) is working to update this summary.

** REGULATORY ALERT **

FDA WARNING/REGULATORY ALERT

Note from the National Guideline Clearinghouse: This guideline references a drug(s) for which important revised regulatory and/or warning information has been released.

On November 18, 2005, the U.S. Food and Drug Administration (FDA) notified manufacturers of Advair Diskus, Foradil Aerolizer, and Serevent Diskus to update their existing product labels with new warnings and a Medication Guide for patients to alert health care professionals and patients that these medicines may increase the chance of severe asthma episodes, and death when those episodes occur. All of these products contain long-acting beta2-adrenergic agonists (LABA). Even though LABAs decrease the frequency of asthma episodes, these medicines may make asthma episodes more severe when they occur. A Medication Guide with information about these risks will be given to patients when a prescription for a LABA is filled or refilled. See the [FDA Web site](#) for more information.

COMPLETE SUMMARY CONTENT

** REGULATORY ALERT **

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INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IDENTIFYING INFORMATION AND AVAILABILITY
DISCLAIMER

SCOPE

DISEASE/CONDITION(S)

Persistent asthma

GUIDELINE CATEGORY

Counseling
Management
Treatment

CLINICAL SPECIALTY

Family Practice
Internal Medicine
Pulmonary Medicine

INTENDED USERS

Advanced Practice Nurses
Health Plans
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

- To achieve significant, measurable improvements in the management of persistent asthma through the development and implementation of common evidence-based clinical practice guidelines
- To design concise guidelines that are focused on key management components of persistent asthma to improve outcomes

TARGET POPULATION

Adults and children older than 5 years of age with persistent asthma

Note: For patients 5 years of age and younger, refer to the specific pediatric recommendations in the 2002 update of the National Asthma Education and Prevention Program (NAEPP) Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma (www.nhlbi.nih.gov).

INTERVENTIONS AND PRACTICES CONSIDERED

1. Peak flow meter
2. Inhaled corticosteroids
3. Long acting beta₂ agonist
4. Short-acting, inhaled beta₂ agonist
5. Oral steroids for acute exacerbations

6. Follow-up outpatient visit
7. Written action plan for self-management
8. Immunization (e.g., influenza, other age appropriate immunizations)
9. Patient and family education
10. Alternative therapies for inhaled corticosteroids with long-acting beta₂ agonists
 - For moderate asthma: inhaled corticosteroids with either leukotriene modifier or theophylline
 - For mild persistent asthma: leukotriene modifier OR sustained release theophylline to serum concentration of 5 to 15 micrograms/mL

MAJOR OUTCOMES CONSIDERED

Not stated

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The Michigan Quality Improvement Consortium (MQIC) project leader conducts a search of current literature in support of the guideline topic. Computer database searches are used to identify published studies and existing protocols and/or clinical practice guidelines on the selected topic. A database such as MEDLINE and two to three other databases are used. The Michigan Quality Improvement Consortium project leader collects and documents search results (i.e., citations, abstracts, and full text articles).

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence for the Most Significant Recommendation

- A. Randomized controlled trials
- B. Controlled trials, no randomization
- C. Observational studies
- D. Opinion of expert panel

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Using the health plan guideline summaries and information obtained from the literature search, the Michigan Quality Improvement Consortium (MQIC) director and/or project leader prepare a draft guideline for review by the MQIC Medical Directors.

The draft guideline and health plan guideline summaries are distributed to the MQIC Medical Directors for review and discussion at their next committee meeting.

The review/revision cycle may be conducted over several meetings before consensus is reached. Each version of the draft guideline is distributed to the MQIC Medical Directors, Measurement, and Implementation committee members for review and comments. All feedback received is distributed to the entire membership.

Once the MQIC Medical Directors achieve consensus on the draft guideline, it is considered approved for external distribution to practitioners with review and comments requested.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Once the Michigan Quality Improvement Consortium (MQIC) Medical Directors achieve consensus on the draft guideline, it is considered approved for external distribution to practitioners with review and comments requested.

The MQIC director also forwards the approved guideline draft to presidents of the appropriate state medical specialty societies for their input. All feedback received from external reviews is presented for discussion at the next MQIC Medical Directors Committee meeting. In addition, physicians are invited to attend the committee meeting to present their comments.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Note: This guideline has been updated. The National Guideline Clearinghouse (NGC) is working to update this summary. The recommendations that follow are based on the previous version of the guideline.

The level of evidence grades (A-D) are provided for the most significant recommendations and are defined at the end of the "Major Recommendations" field.

Use of Peak Flow Meters

- Prescribe peak flow meter. [B]

Frequency

At least once

Regular Use of Controller Medications

- Prescribe daily use of inhaled corticosteroids. [A]
- Add long acting inhaled beta₂ agonist^{1, 2} if persistent symptoms despite maximum inhaled steroid dose. [A]
- Avoid the regular scheduled use of short-acting beta₂ agonists for long-term control of asthma.
- Use spacer for all inhaled medications.

Frequency

Reassess at least every 6 months

¹Inhaled corticosteroids with long-acting beta₂ agonists are preferred therapy for moderate persistent asthma. Alternative treatments include inhaled corticosteroids with either leukotriene modifier or theophylline.

²Alternative therapies for mild persistent asthma include leukotriene modifier OR sustained release theophylline to serum concentration of 5 to 15 micrograms/mL.

Management of Acute Exacerbations

- Prescribe short-acting, inhaled beta₂agonist³. [B]

- Prescribe oral steroids for acute exacerbations that fail to respond adequately³. [B]

Frequency

During acute episode

³Prescribe these medications for the patient to have at home to use in the event of an acute exacerbation.

Medical Follow-up

- Recommend and schedule, if possible, follow-up outpatient visit at discharge from hospital or emergency department. [D]

Frequency

Visit within 7 days of discharge

Periodic Assessment - Education, Monitoring, and Management

- Provide written action plan for self-management (e.g., www.mqic.org/pdf/a_action.pdf).
- Recommend influenza immunization and ensure age appropriate immunization status (e.g., pneumococcal vaccine).
- Educate patient/family regarding:
 - Use of peak flow meter, inhaler/spacer, and other medications
 - Recognition/treatment of symptoms and when to seek medical attention
 - Identification and avoidance of specific triggers
 - Smoking cessation/secondhand smoke avoidance [C]

Frequency

Reassess at least every 6 months

Referral

- Consultation with an asthma specialist is recommended when patient is not responding optimally to asthma therapy, has signs, symptoms, or conditions that make it difficult to obtain asthma control, or following a life-threatening asthma exacerbation.

Definitions:

Levels of Evidence for the Most Significant Recommendations

- A. Randomized controlled trials
- B. Controlled trials, no randomization
- C. Observational studies

D. Opinion of expert panel

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence is provided for the most significant recommendations (See "Major Recommendations" field).

This guideline is based on the 2002 update of the National Asthma Education and Prevention Program (NAEPP) Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma (www.nhlbi.nih.gov).

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Through a collaborative approach to developing and implementing common clinical practice guidelines and performance measures for persistent asthma, Michigan health plans will achieve consistent delivery of evidence-based services and better health outcomes. This approach also will augment the practice environment for physicians by reducing the administrative burdens imposed by compliance with diverse health plan guidelines and associated requirements.

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

This guideline lists core management steps. Individual patient considerations and advances in medical science may supersede or modify these recommendations.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

When consensus is reached on a final version of the guideline, a statewide mailing of the approved guideline is completed. The guideline is distributed to physicians in the following medical specialties:

- Family Practice

- General Practice
- Internal Medicine
- Other Specialists for which the guideline is applicable (e.g., endocrinologists, allergists, pediatricians, cardiologists, etc.)

IMPLEMENTATION TOOLS

Chart Documentation/Checklists/Forms

For information about [availability](#), see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

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ADAPTATION

This guideline is based on the 2002 update of the National Asthma Education and Prevention Program (NAEPP) Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma (www.nhlbi.nih.gov).

DATE RELEASED

2002 Aug (revised 2004 Aug)

GUIDELINE DEVELOPER(S)

Michigan Quality Improvement Consortium

SOURCE(S) OF FUNDING

Michigan Quality Improvement Consortium

GUIDELINE COMMITTEE

Michigan Quality Improvement Consortium Medical Director's Committee

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Physician representatives from participating Michigan Quality Improvement Consortium health plans, Michigan State Medical Society, Michigan Osteopathic Association, Michigan Association of Health Plans, Michigan Department of Community Health and Michigan Peer Review Organization

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

Note: This guideline has been updated. The National Guideline Clearinghouse (NGC) is working to update this summary.

GUIDELINE AVAILABILITY

Electronic copies of the updated guideline: Available in Portable Document Format (PDF) from the [Michigan Quality Improvement Consortium Web site](#).

AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- Asthma action plan. Electronic copies available in Portable Document Format (PDF) from the [Michigan Quality Improvement Consortium Web site](#).

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI on April 14, 2004. The information was verified by the guideline developer on July 27, 2004. This NGC summary was updated by ECRI on December 10, 2004. This NGC summary was updated by ECRI on December 10, 2004. The updated information was verified by the guideline developer on January 21, 2005. This summary was updated by ECRI on December 5, 2005 following the U.S. Food and Drug Administration (FDA) advisory on long-acting beta2-adrenergic agonists (LABA).

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Date Modified: 9/25/2006

